

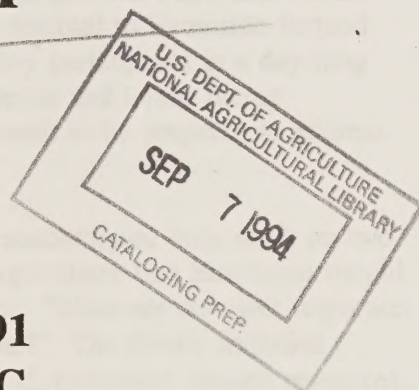
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# **REPORT OF THE AGRICULTURE FUTURING PANEL AND FORUM**

**APRIL 23-24, 1991  
WASHINGTON, DC**



**Submitted to the  
Cooperative Extension System  
Strategic Planning Council  
at Denver, Colorado  
May 6-8, 1991**

**Prepared by  
Donald A. West, ES-USDA  
John S. Bottum, ES-USDA**

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# REPORT OF THE AGRICULTURE FUTURING PANEL AND FORUM

## OVERVIEW

Continuing the Cooperative Extension System's scanning process, the Agriculture Futuring Panel was held on April 23, and the Agricultural Forum on April 24, 1991, in Washington, DC. This is the fourth in a series of panels. The Strategic Planning Council and the Extension Committee on Organization and Policy (ECOP) asked that this Panel and Forum focus heavily on agricultural issues. Ten futurists/visionaries external to Extension formed the Futuring Panel which met April 23 (see Appendix A). They participated in a day-long discussion addressing the question, "What are the emerging trends and issues facing agriculture, in the broadest sense, that non-formal education needs to be prepared to address during the next five to ten years?"

The Forum participants observed the Panel and, on April 24, concentrated their work on two questions. These were: "What are the critical issues facing agriculture that Extension should be prepared to address within the next five to ten years?" And, "What are the most important things Extension needs to do to effectively address these issues?" The Forum included individuals from 34 organizations representing agricultural, food, consumer, natural resources, and environmental groups, and members of the Strategic Planning Council and together with Panel members, represented 22 states and the District of Columbia. Dr. Michael Brazzel, ES-USDA, facilitated the discussions.

This report summarizes major themes and issues that emerged from the two days of discussions. In brief they are:

- Economic and environmental concerns are major forces driving the future of U.S. agriculture, and may be competing forces.
- Being competitive in a free trade context challenges agriculture to respond to the demands of the global market place, and to do so in a way that maintains the natural resource base over time. New technologies, especially biotechnology, will help in meeting this challenge.
- Concentration of resource ownership and integration of functions within agriculture are raising concerns about the future structure of agriculture, especially as it relates to maintenance of efficient competitive family farms.
- Ecologically-responsible, science-based, cost-competitive and socially-responsible agricultural production systems are needed to sustain an agricultural sector compatible with societal values.
- Environmental and societal concerns must be addressed if agriculture is to sustain itself over time. Farmers must be applied ecologists because they are in charge of huge amounts of the nation's natural resources.





- Agricultural-environmental, rural-urban and urban-wildland interfaces are areas where impartial forums can be effective in sharing information and promoting understanding among involved groups.
- Expansion of jobs in rural areas is important for achieving higher incomes and an improved quality of life for agriculturalists and other rural residents.
- Urban residents must be assisted in understanding agriculture. The values of what agriculture is to be for the country as a whole must be clarified for all individuals.
- Extension has an expanded role in developing leadership, especially at the local level.
- Public policy issues are components of many of the major issues faced by agriculture. Extension has an important public policy education role to play, particularly in the areas of biotechnology, food safety, and use of natural resources.
- Extension has a continuing role in the transfer of technology but must cooperate to a greater extent with the research community, the private sector, and other agencies and groups.

## FUTURING PANEL DISCUSSION

Much of the Futuring Panel's discussions revolved around two major forces they saw dominating the future of agriculture. One was economic; the other was environmental.

Economic forces are driving the expansion of free trade and the concentration of production, processing, and marketing into the hands of a shrinking number of firms. The difficulty of attracting young people into agriculture and getting started in farming were related concerns.

Environmental and related consumer forces are driving a growing concern for a safe, nutritious food supply, sustainable, accountable agriculture, a safe environment, and the conservation of our natural resources.

Throughout the day, the Panel repeatedly discussed these two major forces, economic and environmental, and talked in terms ranging from "at war" to "opportunities for balance" and "win, win strategies."

The Panel also recognized other social forces, raising concerns about equity and quality of life. They saw these as becoming more significant over the next five to ten years.

Political and demographic forces that shift power from farm and rural to urban constituencies were recognized. The Panel saw this movement as a major challenge with which agriculture must reckon.





More value-added jobs up and down the producing, marketing and processing chain, was the solution most often discussed. Again and again, the Panel noted the need for new policies and a better informed public to help attain the balance between the driving economic and environmental forces. They saw Extension as well positioned and capable of developing leadership and conducting educational programs, especially policy education, around these issues.

## **MAJOR ISSUES FACING SOCIETY**

### **Issue: Free Trade and Competitiveness**

John Chrystal opened the discussion stating, "The free trade movement in the U.S. and the world is one that will not be denied--whether we like it or not." He argued, "Free trade linked with science and technology improvements will mean there are going to be fewer farmers and farm suppliers. Without a public policy of intervention, the number of farmers will decline by half and the number of suppliers by more than half, causing a demographic and social problem that is extreme in the next generation."

Robert Duxbury agreed that we would see farms become larger. However, "Some of the most efficient units are still family operated enterprises. Many of the units that came through the 1980's economic and weather conditions were the ones that were more diversified. Those that failed were too specialized so they didn't fully utilize their labor and did not have as much control of their investment. Yet all of these units have increased in size somewhat, but it hasn't been the largest units that have been the most efficient or profitable."

It was noted that the salesmen in commercial agriculture are also going to become more important because they too are going to represent larger firms selling to operators of larger farms.

Robert Duxbury was concerned that we have competition at all levels. He said, "If we lose some of our markets as in the beef industry and are down to just three or four markets, how competitive are they going to be?"

"Capital will be an enormous problem," John Chrystal said, "because as farmers make less money per unit, they are going to have to produce more units in order to maintain their income. Capital will be very important." Vernon Breckenridge stated that, "Unless young people have an uncle or dad or grandfather that is already in the business, it is almost impossible for them to get started with the capital that is necessary."

Ken Taylor expressed concern about the increasing concentration of the ownership of production resources in the entire food system. He said, "The social consensus that has undergirded our agricultural system is now breaking down. Competitiveness is not a mission. I need to know why we need to compete. If competition increases equity, fairness of the system, ownership in the system, distribution of its benefits, and decreases hunger, then I am all in favor of competition. The track record has not been that way."





Richard Rominger noted that the targeted free trade agreements are moving much faster than global free trade. He cited negotiations with Canada, Mexico, and Israel as examples. He indicated that free trade with Mexico would impact California because they grow so many of the same crops. He asked, "How do you take care of the short-term dislocations?" But he also agreed that, in the big picture, "It looks like everyone is going to win in the end--especially the consumer."

The Panel agreed that as the world leader in food production we cannot back away from our responsibilities on the global scene to supply food. However, they were concerned that we were doing it at the expense of our resources. They wondered if we can continue and still have sustainable productive capacity here at home. Ken Taylor thought there was a fundamental contradiction between sustainable agriculture and international competitiveness. He said he didn't know of a society that has been able to sustain its agriculture on the basis of exports. The environmental consequences are just too great. Claudine Schneider agreed.

George Kozmetsky also agreed. "Part of our problem," he argued, "is that we have increased our standard of living in this country over the last 50 years at the expense of some of our resources. We weren't doing it in a sustainable manner. A lot of people around the world are asking if we can keep increasing our standard of living and still be sustainable?"

Fee Busby pointed out that when foreign markets opened up in the 1970's and we planted fence row to fence row, we incurred tremendous costs to the environment. We plowed out terrace systems, grass waterways, windbreaks, etc., and that resulted in greater erosion. He concluded, "This idea of being the dominant producer and controller of a large segment of the world's agricultural production has significant negative social, economic, and environmental impacts. We have to be very careful as we talk about competitiveness." Others asked, "Can we afford the luxury of being noncompetitive?"

Owen Newlin said he was firmly convinced that the area of plant biotechnology will be a step forward for competitiveness as we incorporate genes for pest resistance and disease resistance in plants and depend less on pesticides. Dan Farrington said he expected similar progress with biotechnology in the animal field. Claudine Schneider hoped we could continue to zoom ahead in biotechnology and increase our competitive advantage.

"With biotechnology working in those areas of disease resistance and pest resistance, we will get public acceptance," Richard Rominger said. "When biotechnology is couched just in terms of making us produce more with fewer farmers, society doesn't know if that is a benefit or not."

### Issue: Environment/Sustainability

Claudine Schneider captured the sentiment of the Panel with her statement, "We need to recognize that sustainability has to be the essence of the approach of the 90's and the next millennium." This was widely accepted by the Panel.





Owen Newlin asked, "How are we going to have the proper balance between being competitive on a global basis and meeting our social and environmental needs?" That question went to the heart of the issue. Sustainable was referred to as "protection of our resources so we will have them, environmental soundness, and maintenance of the utility of the resource for productivity today as well as in the future." Most agreed that productivity has to result in the ability of people to make a living. It has to be profitable. And it has to be acceptable to society.

Ken Taylor said, "There seems to be a conflict between goals of sustainable agriculture and enhanced purchased inputs. Sustainable is sold as a policy on the basis of low input sustainable agriculture (LISA) with the object of reducing the purchased inputs of farmers. In that sense, these two things are not all that compatible."

Claudine Schneider said, "The goal ought to be to simultaneously improve the economics, and the environmental performance of U.S. agriculture. Some of the agriculture practices of high chemical and energy intensity are now being replaced by biological alternatives and biotechnology." There was a great difference of opinion about the impact of biotechnology; some agreed with Claudine that it was an environmental plus. Others were afraid it was another technological fix that ignores the natural system and eventually requires another technological fix.

Ken Taylor argued that, "Biotechnology is not a free ride. Biotechnology is more an extension of the previous system of agriculture than it is the beginning of a new age of agriculture. The last quote I heard from an Experiment Station director was that 'Our new found friend biotechnology will open the everlasting doors to sustainable agriculture.' I don't happen to believe that is the direction that the research and product development is taking us now. It is short-term. Sustainable agriculture is not short-term. It is profitability oriented, but not necessarily on-farm profitability oriented." Vernon Breckenridge stressed the need to let the nonfarm environment groups realize that no one is more interested in conserving and protecting the natural resources than the farmers themselves.

Fee Busby said, "The farmer is one of our best environmentalists but that is not good enough. The farmer has got to be an applied ecologist because he or she is in charge of what happens to such huge amounts of our land, water, plant and animal resources. An applied ecologist understands the impact of it; why it happened; how it happened; and, therefore, begins to understand how to keep it from happening again." He argued that sustainable agriculture and biotechnology have to come along together. "We have to get much, much better as ecologists to understand how the biotechnology advances we are developing come together for the benefit of mankind. We are not becoming good applied ecologists. That is one of our most important challenges as we develop biotechnological advances," he concluded.

The Panel discussed the need to find ways for environmental practices to be of economic benefit to the private land owner, and the public-at-large as well as to have social and environmental value. Hunting and camping on wetlands and integrated pest management were mentioned as examples.





"Farmers are going to be expected to provide societal benefits other than producing food," Richard Rominger said. "But," he added, "the farmer has to be compensated for it." In the short-run, the Panel thought the public was more willing to pay for some kinds of environmental benefits than they were to provide price supports for farmers.

The Panel's hope for integration and balance is depicted in the three following statements: Claudine Schneider said, "We are seeing many dividing lines. That dividing line between either environmental concerns or agricultural concerns can no longer be there. As those dividing lines are dissolving, we have to seek win-win strategies so we minimize trade-offs between the economics of the farmers and those of the environment." Richard Rominger agreed, "The walls are coming down and need to come down. We need to look for the opportunities where the environmental organizations, farmers, consumer organizations and the conservation organizations can work together. We have a lot of things in common. More and more there are win, win scenarios that come out of that. We will have to keep working at them though." Owen Newlin concluded, "One of our challenges is to identify and understand the values and beliefs we have as a society in general and in agriculture and the food chain, specifically. Then we need to integrate and balance these values and beliefs as they relate to the environment and to competitiveness on a global scale and build a consensus toward that end."

The challenge to Extension from the economic and environmental driving forces is to help agriculture achieve a balance among free trade/competitiveness/productivity and the environment/sustainability. It is to integrate the two so they result in economic and environmental gain. The Panel's view was that if a balance could not be achieved, the environmental interests would prevail in the long run.

The Panel was also concerned about quality of life and equity. They believed quality of life in rural areas was an increasingly important factor in attracting and retaining young people in agriculture. This warrants attention and may require a trade-off with productivity.

Richard Rominger explained, "Quality of life is going to have more and more impact on agriculture. We need to educate the general public and especially the urban community on how the quality of life can be enhanced with a strong agricultural economy. Open space is an example. This gets back to the balance between the competitiveness of agriculture and the quality of life. That issue will have to be debated by society.

Equity was a more difficult concept for the panel. Although they agreed with the goal, suggestions for achieving it were not forthcoming.

In short, the environmental, quality of life, equity and even political forces are nibbling, if not aggressively chewing away at productivity and U.S. free trade policy. "How do you remain competitive in agriculture and still have a balance with environmental and social issues?" was their question.



### **Issue: Rural Development**

One component of the Panel's solution for achieving higher incomes, an improved environment and quality of life, and more equity is to expand job opportunities in rural areas. Jobs that add value to local resources/products were preferred. They noted the importance of adding value up and down the line from research through development, production and marketing and including servicing and finance. They stressed that a small number of new jobs can be important to a small community.

They discussed the need to build partnerships and alliances among the university, government, business and industry. They reiterated Extension's capacity to help build such alliances. John Chrystal said, "The goal of rural development is to sustain the population in rural America with a satisfactory level of living." He added, "It really requires development of leadership. To speed up the process at the local level, you have to identify leaders and train them because the decisionmaking requirements are more sophisticated than they have ever been before in the history of agriculture."

### **Issue: New Consensus for Agriculture**

The Panel saw agriculture as an industry that cuts across many different dimensions. "People only represent pieces of it; no one represents it all," George Kozmetsky explained.

Fee Busby stated, "The values that our mission should be judged against are sustainability, flexibility, efficiency, diversity and equity. We will disagree as to what those mean. That is the debate and where consensus needs to occur. We must clarify the values of what agriculture is to be for the country as a whole and for individuals ranging from farmers to consumers."

"If you are talking about developing national policy or a national mission," Richard Rominger said, "you have to include the new actors. You have to build a coalition or you will come up with a mission you can't fulfill and that cannot be implemented because it does not have support." Ken Taylor agreed and added, "The agricultural establishment, by itself, will not arrive at a mission that can be supported. If the current mission is for U.S. agriculture to feed the world, you might find a consensus depending on who you ask. But it is not a viable mission for a combination of many groups. Since the Land Grant System exists everywhere that would be a logical role for Extension to play. But at this point I'd question whether or not they are ready to take on that role."

### **Issue: Understanding Agriculture**

Dan Farrington said, "Agriculture and society are becoming almost two separate entities. Urban people don't know farming and they don't understand agriculture."





The Panel felt strongly that Extension has a role to play in explaining what is going on in agriculture to the urban population. This understanding, or lack thereof, ranges from society's acceptance of a new technology to concern for the safety of our food to environmental quality. The Panel noted the shift in political power from farms and rural areas to large urban centers. They gave high priority to Extension conducting fundamental programs where we try to develop a sound understanding among the population about modern agriculture, how it works and what it takes to make it function effectively. Dan Farrington observed, "It has to be more than PR."

Richard Rominger said: "We need more agricultural literacy. Too many people are three or four generations off the farm. We need to inform the general public about what resources are required in agriculture. Soils, you have got to have soils; and you have to reduce erosion; you have to have a water supply; you have to have energy; and you have to keep the soils from being paved over if you want to have food in the next century. All of this is the education that is needed."

### **Issue: Recruitment, Retention and Training**

The Panel discussed this set of issues throughout the day, and differences surfaced. Some believed there is a shortage of young people entering farming while others believed there are more young people who want to farm than there are opportunities. Most thought a real effort should be made to attract young people and minorities and women into the broad field of agriculture. One thought it was "unfair to target young people to stay in rural communities."

The Panel also had differing views on the quality of life on the farm and in rural areas. Some thought it was pretty good. Others pointed out that quality of life is more closely correlated with income than with geographic location.

There was great concern over the dwindling number of black farmers and the relatively small number of other minorities on the farm. Vernon Breckenridge asked, "How do we bring in minorities and women to agriculture? Many of you know there are reports out that say by the year 2000 there will be no minorities farming." The Panel saw the need for added effort to attract more young people into agriculture. Richard Rominger indicated that some jobs in agriculturally-related businesses in California are already going begging.

### **Extension's Role: Some Additional Comments from the Panel**

At times throughout the day, the Panel commented on Extension's role as it relates to the issues. Most of these comments dealt with program delivery and many focused on activities at the local level.

Fee Busby: "Extension needs to be careful how they target their programs because there are many different targets out there. Each of them has unique needs and all of them have to be met--small, medium-size and large farms; small and giant agribusinesses; and others."





Robert Duxbury: "To be competitive, we need Extension to develop the local programs. These have to be different in each area. Our greatest need is to really involve the local advisory committees in determining the real needs of the programs. Develop the local needs first and then move to the statewide program. Successful programs have to be built on local support and local needs."

John Chrystal: "An important part of Extension leadership development work is to bring the people in and take the leadership from the local area and help mold it into state and Federal policy."

Richard Rominger: "You have to have that local agricultural base for Extension. It is important that you have those research-based agents and specialists. They have to be connected with the university. One of the problems we are running into with Extension is getting some of the people that have been there for a long time to recognize that maybe the thing they have specialized in has to have a new emphasis. We need to get them to look at some of the things the community is concerned about."

Vernon Breckenridge: "I have always looked to Extension as being the educational arm of the local services rendered at the county level. I am very concerned that we need to work with all the local businesses and the public and private industries in our local communities to really make farming a viable industry and provide a reasonable living for those who are a part of it."

Dan Farrington: "We have a dichotomy between agriculture as we are practicing it and the general public. We need to assure through the educational process that we can have the kind of dialogue and buy-in that are required in order for new advance to be accepted."

George Kozmetsky: "We are now beginning to ask, how much further can Land Grant take us in the growth of this country? It has done a tremendous amount. We have been financing a lot of what we are talking about in agriculture from Land Grants. When do they peak? -- research, training, getting the right people, balancing kinds of people we need? We have done an outstanding world class effort in these areas. Now when we are short of money that is what we are talking about."

Fee Busby: "Extension with agents and specialists from the local to the national level is the only organization in this game that is prepared to help people at all levels deal with the things we have talked about today. Extension has a tremendously important role to play."



## ***FORUM INTERACTION AND DISCUSSION***

On the second day, April 24, representatives of the 34 agricultural, food, consumer, natural resource and environmental organizations participated with members of the Strategic Planning Council in identification of issues that Extension should address and discussion of what the Cooperative Extension System needs to do to effectively address them (see Appendix C for the list of Forum participants). Three members of the Strategic Planning Council opened the session with summaries of what they heard from the Futuring Panel on the previous day. Forum participants then worked in small groups to identify issues that Extension should address. Issues identified by the groups were shared with all participants who then collectively ranked them in order of their importance. A similar process was followed in the afternoon to identify and share things that Extension should do to address these issues.

### **ISSUES THAT EXTENSION SHOULD ADDRESS**

The issues identified focused on leadership; public policy education; agricultural-environmental, rural-urban and urban-wildland interfaces; and a set of issues dealing with the development and maintenance of an ecologically-responsible, science-based, cost-competitive and socially-responsible agriculture (see Appendix B). Others highlighted the importance of a profitable and sustainable agriculture; maintaining an efficient competitive family farm structure; and recognizing interactions among free trade and natural resource use. The remainder deals with transferring technology and handling information overload; involving nontraditional audiences and the private sector while maintaining credibility, and being open to change and sensitive to public perceptions of agriculture.

#### **Leadership**

The leadership issue specified **an expanded role for Extension with emphasis on coordinating all sectors of leadership**. Discussion on this issue and what Extension needs to do to address it brought out the importance of Extension understanding its mission and audience; being a leader without waiting for consensus and of training leaders to be effective in their local communities. Extension can be a leader in the process of defining a common set of goals and values for the agriculture/urban interface and putting together information from many sources. It can be proactive on public education issues and be effective in analyzing resources and building capacity at the local level.

Specific actions developed by small groups and reported to all participants included the following related to the leadership issue (see Appendix 2):

- Extension management needs to decide on priority issues, focus, put resources on the issue, accomplish goals and move on.
- In terms of capacity building, look to new groups to develop leadership; provide them with research direction and support. Extension may not be the leader; they should train the leaders.
- Take the lead in establishing formal leadership programs, broader than agriculture, at the local level.
- Continue to emphasize leadership at the local level, utilizing all external sources of leadership. Explore new models, especially systems models.





Individual comments about Extension's leadership role from Forum participants include:

- We need a common set of goals, visions and values for the agriculture-urban interface, the environment and labor.
- Want to see Extension be an advocate/leader; not wait for consensus.
- Leadership (is needed) in putting together the many sources of information for farmers; there is a lot of duplication of effort.
- One of the primary missions of Extension is to empower people in the local community to make good decisions.
- Do capacity building, analyses of local resources; facilitate implementation but don't do it for them.
- Extension can be an unbiased facilitator of bringing groups together.

### **Public Policy Education**

The second major issue focuses on **public policy education, especially as it relates to new technology in areas such as biotechnology, food safety, and natural resource use.** Discussion among Forum participants indicated that Extension has an educational role to play in public policy in helping participants clarify fundamental values, understand the issues, alternative solutions and their consequences. Extension can also make people aware of what policies may be coming and how policy decisions may impact their operations or positions. More can be done to analyze how macro trends and policies will affect the agricultural community and what can be done locally to take advantage of the various trends and policies. Some stressed that the role of Extension is one of public education and not one of advocacy.

Specific recommended actions are:

- Set public issues agenda by being proactive on issues; and elevating the issues in terms of information about it.
- Strengthen county agents' capability to communicate policy and technical issues with local committees and communities through inservice education, networking and other methods.

Individual comments from forum participants also recognized the significance of public policy issues and the importance of producers and consumers understanding how they may be impacted by various policies and decisions made about them. Their comments highlighted the following in terms of Extension's role:

- Extension has an educational role in public policy.
- Extension can help clarify fundamental values. It can identify and promote understanding of the values we have as a society and expect agriculture to integrate on a global scale.
- Make the public and industry aware of what is coming; e.g., in the areas of free trade and demographic change.
- Help people see how their operations would be impacted, should public policy go in a given direction.
- Consider what kinds of policies will help in the future.





## Agricultural-Environmental, Rural-Urban and Urban-Wildland Interfaces

The interfaces between agriculture and the environment, rural and urban areas, and between urban and wildland areas were identified as points of contact where improved communication and understanding are needed to develop longer term relationships among these important segments of the American society. This interaction should provide networks and promote information sharing on the resource demands and "rights" of agriculture, the forest industry and other rural businesses; on other topics including market values, food safety, food quality, nutrition, forest management and fire control; and it should provide education for rural people about urban needs and concerns. Forum participants indicated that there should be outreach to different groups, especially those outside the mainstream. Rural America and agriculture can benefit from educational programs that enable them to adjust to demographic and economic trends over which they have little control. Consistent attention should be given to the agricultural-environmental interface and to programs that deal with this area. Specific recommended actions for Extension are:

- Provide an impartial forum to exchange information and research results on environmental issues indicating both positive and negative implications.
- Help rural America and agriculture adjust to demographic and structural changes and resultant economic shifts.
- In regard to the agricultural-environmental interface, use what is known and modify as new research becomes available. Use all resource groups in coordinating programs; speed up the process.

Individual comments focused on the education/integration process and the importance of recognizing all dimensions/involved groups in the interfaces. Specific comments included:

- Need integration and balance among the economic, social and environmental aspects of agriculture.
- It is important for Extension to deliver a balance between the environment and productivity. Do it as a legitimate function of Extension to educate urban audiences.
- Farmers feel they are doing a good job with the environment. They are concerned about loss of property rights as in the case of endangered species.
- Give added emphasis to the agricultural-urban interface and to Integrated Resource Management.
- Do analyses of communities; identify their needs as they see them and consider options that are feasible.

## Agricultural Production Systems That Are Ecologically-Responsible, Science-Based, Cost-Competitive and Socially-Responsible

This issue focused on the development of an agricultural sector that is compatible with current and emerging societal values while maintaining its cost-competitiveness in an expanding global market. This issue relates directly to a sustainable agriculture that involves all actors -- farmers, communities, and marketers/processors in its growth and development over time. It stresses the use of research-based knowledge in reaching for the



goal of maintaining the natural resource base, preserving the environment, and being responsible to other societal values; e.g., food safety while recognizing that cost-competitiveness and income for farmers and communities are essential. Recommended actions for Extension in this area are:

- Give attention to a science-based, competitive, socially-responsible and sustainable agriculture. In a balanced local role, recognize aspects of a family farm structure and benefits of international work.
- Employ a "technology education" staff to train producers, the public, youth and other Extension personnel in biotechnology and other related areas.
- Broaden the base of Extension's operational expertise to extend across state and other boundaries.

Comments from Forum participants highlighted the importance of an accountable agriculture and forestry that maintain their competitiveness and provides an acceptable standard of living for producers and other members of rural communities and the agricultural sector. Comments dealt with sustainability as a concept and the related environmental, economic and social dimensions. Specific comments included:

- "Accountable agriculture:" producing food that does not cause a health problem.
- There are changing values; consumer acceptance may determine competitiveness.
- Sustainable agriculture is an overreaching umbrella. Extension should use it to measure the effects of technology, agricultural/environmental interface, land use, biotechnology, policy, and rural development.
- The farmer must be an applied ecologist who understands impact. He must know how and why impacts occur and how to prevent them from happening again.
- Forestry is a part of agriculture. There have been three decades of emotionalism about the environment; people want the facts.
- Better management of resources is needed for economics and the environment. This would positively impact all other themes.

#### Future Structure of Agriculture:

This is a pervasive issue with a long history that relates to values, efficiency, competitiveness and the population density of rural areas. It was identified by Forum participants in three separate issues that addressed **concentration of resources and integration of functions within agriculture; maintaining an efficient, competitive family farm structure; and recognizing the importance of income and profitability in agriculture and rural communities.** These dimensions interact with trade-offs occurring between concentration/integration and profitability/income in some producing sectors and the policy related concerns about maintaining a family farm structure and viable rural communities.





Recommended actions for Extension did not directly address this issue, but two do address it to some extent. These are:

- Help agriculture adjust to shifting structural changes and resultant economic shifts.
- In a local balanced role, provide information on maintaining the family farm structure.

Individual comments focused not only on concentration of resources and size of farms, but also on entry into farming and the number of people in the occupation. The comments include:

- Farms are getting bigger or smaller. There is more commodity specificity and forward contracting. There is also focus on part-time farmers.
- Too many people in agriculture is a myth. If the economic opportunity is there, the people will be there.
- Are we willing to embrace the policy of saving the family farm?
- Youth are not being recruited into farming. Ask youth what it would take to be a farmer or to marry a farmer.
- Challenge urban youth to enter agriculture.

### Role of Extension As A Technology Vendor to All of Agriculture

This issue focuses on a major Extension function but brings with it the related issues of **the extent to which the technology transfer function is being privatized**, and the role of Extension in **dealing with information overload by providing better access, synthesis and dissemination of research-based knowledge**. Questions revolve around whether Extension is (or should be) a unique objective vendor of technology or operate in a cooperative role involving training for other vendors as well as provide some direct transfer. With the abundance of information now available, that role may involve the selection and synthesis of information relevant to a specific situation. Recommendations for action by Extension in this area are:

- Form more effective partnerships with the private sector, research, communities and special interest groups. Use Extension funds and programs to leverage funds from other agencies.
- Serve as a one-stop referral system to facilitate the development of new (farm and other) businesses and sustain the growth of existing ones.
- Be a facilitator of pertinent information for the entire State University system and disseminate in an objective and usable form.
- Provide better training for Extension staff, in terms of technical background and information and in dealing with the media and reporters.

Comments from Forum participants addressed the importance of technology transfer and application, areas where technical information is needed and methods for transferring technology and receiving feedback on needed research. Selected comments are:

- Need to create forums so information can be exchanged.



- Must have a local base and a research base. Extension people should do applied research and deliver it to the public.
- Biotechnology is important; more information is needed. Biotechnology is a tool; keep it in perspective. Extension needs to stay in an educational role; not regulatory.
- In food safety, food handling is the biggest problem; diet and disease are issues.

### **Free Trade Potential and Trade Policies**

This issue has two dimensions: **potential for bringing products on the market, and the U.S. policy of cheap food and overproduction versus other countries' policies of protection of agriculture.** There was concern about being competitive in a global context and about adding value to food and fiber products within the United States. There was also concern about the use, and possible depletion, of natural resources in developing and maintaining a competitive position in the global market place; and doing so in the face of growing environmental and social issues. The other concern in this area is how a policy of cheap food and free trade in the U.S. versus a policy of protecting agriculture in other countries will impact U.S. producers and consumers. Forum participants did not directly identify things Extension needs to do in this area, but individual comments did address these issues. Selected comments are:

- Underlying any trade policy, we need to maintain flexibility, diversity and sustainability.
- Consider how or how do we want to use national and natural resources in the global market place.
- Free Trade movement is a link with science and technology resulting in fewer farmers and suppliers. Need public policy of intervention to turn around potential impact on reduction of farmers.
- Policy for U.S. is to have cheap food; policy for European Community is to have family-based agriculture.
- U.S. needs to be aggressive about developing and transferring technology within U.S. before exporting overseas.
- To leapfrog into the global economy, add value and compress the process. Levels of value can be changed through research, production and marketing.

### **Public Perception of Agriculture and Credibility of Extension and Land Grant Universities**

This issue deals with image and credibility. Specifically, it addresses the **public perception of agriculture, involvement with nontraditional groups with bona fide agricultural interests, and the credibility of Extension and the Land Grant Universities with urban, rural nonfarm, and farm groups.** The image of agriculture with various groups identifies an educational challenge, while the credibility of Extension and the Land Grant Universities influences their ability to meet this challenge. Recommendations for action to improve perceptions, credibility, and role are:

- Conduct self-analyses of the changing technical, social and information exchange dimensions to get people in Extension on the same "wave length."





- Open the System to outside bids for training, expertise and development of information.
- Creatively seek new sources of funding such as service fees and grants.

Individual comments on the public's perception of agriculture focused on how to promote understanding of agriculture among all groups, especially nontraditional audiences. Increasingly, there is lack of understanding about agriculture's overall role and about the resource demands and products from the agricultural sector. Specific comments include:

- The 1990's are a time of dramatic change, seeing dividing lines being broken. Need to think locally and act globally.
- Think about agriculture as a "whole;" build consensus and discussion.
- How do we effectively communicate with and involve nontraditional groups with agricultural interests? Their interests drive research.
- Build understanding among urban people of the resources necessary for agriculture.
- Hunger is not a production problem; it's an income and jobs problem.

Comments on improving credibility and role were divided into those that pertain to Extension's relationships with clients and external groups and those that pertain to relationships within Extension. Selected externally-related comments are:

- The issue is change; changing technology and economics. Extension is not able to control those or to change them. Extension can teach people how to adjust to change.
- Education must be a component of what can be done.
- Congress wants Extension to deliver everything; can't do this.
- Obstacle for Extension is self-selected clientele. Then it is difficult to reach others. It listens to persons who support status quo; need to aggressively seek input from others.
- Lack of use of Extension. Amazed at the number of farmers who haven't used Extension for three years.

Selected internally-related comments are:

- Extension needs a higher proportion of staff who are capable of addressing broader needs; tap into corners of university not traditionally addressed.
- Need more generalists; give the organization more flexibility as to where it goes for expertise.
- In recruitment, education, training and retention, provide programs to reach women and minorities.
- Problem for specialist is that of breaking the department lines which are narrow in their own field.
- Open up the System for contracts. Develop background, carry out programs, contract out tasks.



## SUMMARY

The Futuring Panel identified a number of issues that may impact U.S. agriculture and rural areas in the future. These issues are driven primarily by economic and environmental forces. Most of these issues focus on agriculture with the two others, rural development and recruitment/retention/training of Extension staff, being closely related. Forum participants, having observed the Panel, reiterated the importance of those issues that may impact agriculture, but they went beyond those in identifying leadership and public policy education as issues that Extension should address.

There appeared to be general agreement that agricultural production in the future will need to occur in a manner compatible with environmental and societal goals. Among economic forces, consumer interests will continue to be dominant and free trade emphases must take long-term use of natural resources into account.

Recommendations for things Extension must do to address the issues highlight the importance of providing leadership, technology transfer and other educational programs at the local level. Attention should be given to serving all of agriculture recognizing changes in structure and the role of the family farm. Impacts of public policy are such that unbiased information on both sides of the issue together with identification of potential outcomes from alternative decisions are needed by Extension clientele. Attention to helping all of society understand the importance of agriculture and its resource requirements is recommended along with emphasis on the agricultural/environmental, rural-urban and urban-wildland interfaces. Within Extension, attention to recruitment and training of staff is recommended along with flexibility and willingness to adapt to changing conditions.





**FUTURING PANEL MEMBERS  
COOPERATIVE EXTENSION SYSTEM STRATEGIC PLANNING  
WASHINGTON, DC  
APRIL 23, 1991**

<b>Vernon Breckenridge</b>	<b>Farmer</b>	<b>Hennessey, Oklahoma</b>
<b>F.E. "Fee" Busby</b>	<b>Regional Director</b>	<b>U.S. Program, Winrock International Institute for Agricultural Development, Arkansas</b>
<b>John Chrystal</b>	<b>Chairman</b>	<b>Iowa Savings Bank</b>
<b>Robert Duxbury</b>	<b>House Minority Leader</b>	<b>South Dakota House of Representatives</b>
<b>Daniel O. Farrington</b>	<b>Senior Director Animal Science Research</b>	<b>Merck, Sharp &amp; Dohme Research Laboratories, New Jersey</b>
<b>George Kozmetsky</b>	<b>Director, International Institute for Innovation, Creativity &amp; Capital</b>	<b>University of Texas</b>
<b>Owen Newlin</b>	<b>Senior Vice President</b>	<b>Pioneer Hi-Bred International, Iowa</b>
<b>Richard Rominger</b>	<b>Farmer</b>	<b>Winters, California</b>
<b>Claudine Schneider</b>	<b>Fellow, Institute of Politics</b>	<b>Harvard University</b>
<b>Kenneth Taylor</b>	<b>Executive Director</b>	<b>Minnesota Food Association</b>



**AGRICULTURE FUTURING PANEL AND FORUM**

**APRIL 23-24, 1991**

**WASHINGTON, DC**

**John Blanchfield  
American Bankers  
Institute  
Washington, DC**

**Jeffrey Plagge  
American Bankers  
Association  
Webster City, IA**

**John Datt  
American Farm Bureau  
Federation  
Washington, DC**

**Jim Hodges  
American Meat Institute  
Arlington, VA**

**David Ross  
American Society of  
Agricultural Engineers  
College Park, MD**

**William Van Dresser  
American Veterinary  
Medical Association  
Washington, DC**

**Stanley Wilson  
Council for Agricultural  
Science & Technology  
Ames, IA**

**Victor Lechtenberg  
Crop Science Society  
of America  
Lafayette, IN**

**Bud Rumberg  
SRS, USDA  
Washington, DC**

**Dennis Kopp  
Entomological Society  
of America  
Washington, DC**

**Emmet Barker  
Equipment Manufacturers  
Institute  
Chicago, IL**

**Garth Youngberg  
Institute for  
Alternative Agriculture  
Greenbelt, MD**

**Mark Bailey  
Joint Council on Food  
& Agricultural Science  
Washington, DC**

**Bill Blair  
National Alliance of  
Independent Crop consultants  
Circleville, OH**

**Ken Tanner  
National Association  
of Farm Broadcasters  
Raleigh, NC**

**Olin D. White, Jr.  
National Association  
of State Foresters  
Trenton, NJ**

**Jack Kintzle  
National Corn  
Growers Association  
Coogon, IA**

**James Brown  
National Cotton Council  
Memphis, TN**





Jack Armstrong  
National Council of  
Farmer Cooperatives  
Washington, DC

Barbara Cowdery  
National Extension Committee  
New Hartford, NY

Charles Frazier  
National Farmers  
Organization  
Washington, DC

Michael Dunn  
National Farmers Union  
Washington, DC

Robert Frederick  
National Grange  
Washington, DC

Leon Locke  
National Live Stock  
and Meat Board  
Hungerford, TX

Tom Reed  
National Livestock  
Producers Association  
Washington, DC

John Hardin, Jr.  
National Pork  
Producers Council  
Danville, IN

Jim Tavares  
National Research Council  
Washington, DC

Teresa Farney  
National Turkey  
Federation  
Reston, VA

Lyle Schertz  
Resources for the Future  
Washington, DC

Harry Mussman  
Science and Education, USDA  
Washington, DC

Ray Housley  
Society for Range  
Management  
Falls Church, VA

Norman Berg  
Soil & Water  
Conservation Society  
Washington, DC

Margaret Krome  
Sustainable Agriculture  
Coalition  
Madison, WI

Ford West  
The Fertilizer Institute  
Washington, DC

Geraldine Bower  
U.S. Office of Consumer  
Affairs  
Washington, DC



*ISSUES IDENTIFIED BY THE FORUM*

<u>RANK</u>	<u>ISSUE</u>	<u>SCORE*</u>
1	Development of Leadership Based on an Expanded Role for Extension with Emphasis on Coordinating All Sectors of Local Leadership	19
2	Public Policy Education, especially on New Technology; e.g., Biotechnology, Food Safety, - Role of Extension - Positive and Negative Impacts of Products (Public Education (vs.) Advocacy)	17
3	Agricultural-Environmental Interface: Demands and Needs; Includes Forest Resource as a Natural Resource	9
4-5	Rural-Urban Interface & Urban-Wildland Interface: Market Values, Food Safety, Food Quality and Nutrition, Education for Rural People About Urban Needs and Concerns, Right to Farm, Forest Fires (Networks for Information Sharing)	8
4-5	Development of Production Systems That Are Ecologically-Responsible, Science-Based, Cost-Competitive, and Socially-Responsible	8
6-7	Maintain Efficient, Competitive Family Farm Structure for American Agriculture - with the Mid-Range Owner-Operator as the Most Important Issue	5
6-7	Role of Extension As A Technology Vendor For All of Agriculture	5

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\* Forum Participants ranked the issues using a dot voting system that assigned highest scores to the most important issues.





<u>RANK</u>	<u>ISSUE</u>	<u>SCORE</u>
8	Importance of Income and Profitability in Agriculture and Rural Communities	4
9-11	Sustainability of Agriculture - Includes Farmer, Community, All Actors; Sustainability is the Goal, the Challenge is how to measure it	3
9-11	Changing the Public Perception of Agriculture, Agriculture does not equal Farming	3
9-11	Involving Non-Traditional Groups with Bona fide Agricultural Interests; e.g., Groups such as "Good-Food," Economic-Environmental Balance, and Socio-Economic Impacts of New Technology	3
12	Changing Role of Producers in the Future Structure of Agriculture; Concentration, Integration, Where does it leave the Family Farmer?	2
13-15	Need for Extension to Keep Their Process Open to Change	1
13-15	Privatization of Extension; Lack of Use of Extension in Production Agriculture	1
13-15	Credibility of Extension and Land Grant Universities with Non-Farm Urban, Non-Farm Rural and Farm Groups	1
16-18	Information Overload: Better Access, Synthesis, Dissemination	0
16-18	U.S. Policy of Cheap Food and Overproduction (versus) Other Countries' Policy of Protection of Agriculture and Potential for Bringing Products on the Market - Free Trade	0
16-18	Rural Development is not an Agricultural Problem; It is a National Socio-Economic and Environmental Problem	0

